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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,729	07/01/2003	John Frederick Graf	RD-29412	6131

7590 12/01/2004
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EXAMINER

BISSETT, MELANIE D

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/611,729	Applicant(s) GRAF ET AL.	
	Examiner Melanie D. Bissett	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/03</u> . | 6) <input type="checkbox"/> Other: ____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10, 12-23, 25-29, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunelle et al. in view of Ringler et al. Brunelle (US 6,265,522) can be found on the applicant's Form PTO-1449.

3. Brunelle discloses thermally stable polymers of resorcinol and dicarboxylic acids (abstract). The dicarboxylic acids are preferably terephthalic acid, isophthalic acid, or mixtures thereof (col. 4 lines 47-56). The materials form surface coatings for multi-layer structures, where the multi-layer structures contain a substrate layer, an intermediate layer, and the polyester outer layer (col. 18 lines 7-33). Polycarbonates are preferred substrate materials (col. 18 lines 57-64), and intermediate layers include any of those substrate or coating materials mentioned (col. 21 lines 20-30). Note that polymethyl methacrylate (PMMA) materials are noted as suitable substrate materials (col. 19 lines 24-34). However, the reference does not specifically show PMMA materials between a polycarbonate layer and the thermoplastic polyester layer or teach the refractive indices of these layers. Ringler teaches that the optical properties, including transparency, of polycarbonate articles can be improved by coating with PMMA (col. 2 line 38-col. 3 line 4; col. 4 lines 6-15; example 1). Thus, it is the examiner's position that it would have been prima facie obvious to treat the polycarbonate layer of Brunelle's invention with

Art Unit: 1711

PMMA before coating with the polyester surface coating to improve the transparency of the polycarbonate layer. Since the applicant has taught PMMA as having a refractive index of about 1.49 and has taught the same polyester materials for the surface film, it is the examiner's position that the article of the combined references would possess the claimed refractive index properties.

4. Regarding the addition of colorants or fillers, Brunelle teaches that the interlayer, substrate, and surface layer may contain colorants or decorative fillers (col. 18 lines 25-28; col. 19 lines 65-67; col. 17 lines 30-41). Regarding the formed articles of the invention, Brunelle teaches the claimed applications (col. 22 lines 8-55). Such applications would require applying the multi-layer material to a second substrate. The articles are formed by coextrusion, overmolding, multi-shot injection molding, etc. (col. 21 lines 30-42).

Allowable Subject Matter

5. Claims 11, 24, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The closest prior art, Brunelle et al., teaches thermally stable polymers of resorcinol and dicarboxylic acids, where the materials are used in multi-layer structures containing a substrate and interlayer. However, the reference does not indicate the use of additional layers between the interlayer and substrate layers. It is the examiner's

position that the inclusion of such a structure provides a novel and unobvious step over the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (571) 272-1068. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**MELANIE BISSETT
PATENT EXAMINER**

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